

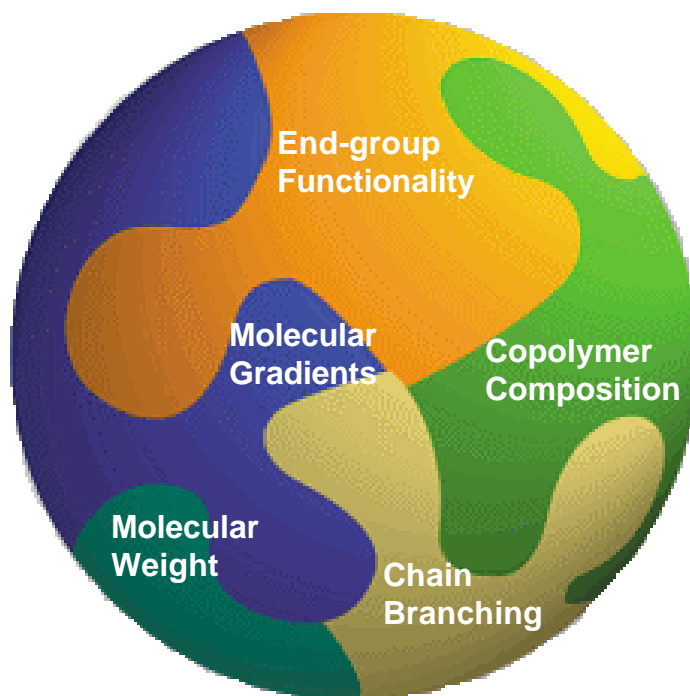
Polymer Synthesis & Characterization with Gradient Molecular Properties

- Critical Issues

- Critical need exists to develop a simple combinatorial synthetic methods to generate libraries of ranges of polymer molecular mass, varying yet controlled architecture, co-polymers with diversity in composition as input materials for generating combinatorial maps of structure-property relationship.

- Research Strategy

- Develop inert atmospheric ATRP based synthetic method for preparing polymer libraries with simultaneous gradients in molecular mass, co-monomer fraction, and varying molecular architecture. Evaluate composition, structure and efficiency of reaction methods using high-throughput light scattering, IR absorption, UV degradation reactions and MALDI mass spectroscopy. Utilize functionalized polymers gradients as resins for controlled testing of formulations.



For more information ...